

Notice of Allowability

Application No.

10/656,205

Applicant(s)

ITO, KAZUHIRO

Examiner

Jason M. Greene

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicants' communication filed 08 September 2003.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 08 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10/6/03; 1/6/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claims

2. With regard to claims 1 and 14, the phrase "the exhaust gas" in lines 2 and 1, respectively, has been interpreted as being an exhaust gas to be purified by the substrate.

Allowable Subject Matter

3. Claims 1-17 are allowed.
4. The following is an examiner's statement of reasons for allowance:

With regard to claims 1-13, International Publication WO 94/22556 discloses a method of fabricating a substrate used for purifying an exhaust gas comprising a step of forming a pre-mold (12) including a first end (14), a second end (15), a plurality of

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partition walls (16) extending between the first end and the second end, and a plurality of passages (17) defined by the plurality of partition walls, a first transforming step for transforming the ends (19) of the partition walls at the first end of the pre-mold defining one of each two adjacent passages in such a manner that the ends of the partition walls are collected toward the center of the corresponding passage and connected to each other, and a second transforming step for transforming the ends of the partition walls at the first end of the pre-mold in such a manner that the end surface of each of the partition walls at said first end of said pre-mold is depressed toward the second end of the pre-mold (by kneading or pressing the first end of the pre-mold with a roller, see page 15, lines 14-18) in Figs. 3-5 and page 13, line 9 to page 16, line 8.

The prior art made of record does not teach or fairly suggest the method of claim 1 wherein the end surface of each of the partition walls at the first end of the pre-mold is depressed toward the center of the end surface. Specifically, since WO 94/22556 teaches the first end being kneaded or pressed by rolling a roller over the first end, the end surfaces of the partition walls at the first end are seen as being uniformly depressed instead of depressed toward the center of the end surface.

The Examiner notes that the phrase "the end surface of each of the partition walls at said first end of said pre-mold is depressed toward the center of the end surface" in lines 19-20 of claim 1 has been interpreted to mean that the end surfaces of the partition walls at the first end of the pre-mold are depressed such that the end surfaces of the partition walls are transformed into a depression having a deepest

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portion at the center axis of the passage, as taught in the instant specification at page 9, lines 26-37 and as shown in instant Figs. 2 and 5.

With regard to claims 14-17, International Publication WO 94/22556 discloses a substrate (12) used for purifying an exhaust gas comprising a first end (14), a second end (15), a plurality of partition walls (16) extending between the first end and the second end, and a plurality of passages (17) defined by the plurality of the partition walls, wherein the ends (19) of a plurality of the partition walls at the first end of the substrate defining one of each two adjacent passages are collected toward the center of a corresponding passage and connected with each other, the end surface of the partition wall ends at the first end of the substrate being depressed toward the second end of the substrate (by rolling a roller over the first end of the substrate, see page 15, lines 14-18), wherein the ends of a plurality of the partition walls at the second end of the substrate defining the remaining one of the two adjacent passages are collected toward the center of the corresponding passage and connected with each other, the end surface of the partition walls at the second end of the substrate being depressed toward the first end of the substrate (by rolling a roller over the second end of the substrate, see page 15, lines 14-18) in Figs. 3-5 and page 13, line 9 to page 16, line 8.

The prior art made of record does not teach or fairly suggest the substrate of claim 14 wherein the end surface of the partition walls at the first end or the second end of the substrate is depressed toward the center of the end surface. Specifically, since WO 94/22556 teaches the first and second ends being kneaded or pressed by rolling a

roller over the first and second ends, the end surfaces of the partition walls at the first and second ends are seen as being uniformly depressed instead of depressed toward the center of the end surface.

As noted above, the phrases "the end surface of the partition walls at the first end of the substrate being depressed toward the center of the end surface" and "the end surface of the partition walls at the second end of the substrate being depressed toward the center of the end surface" in lines 13-15 and 20-22 of claim 14 have been interpreted to mean that the end surfaces of the partition walls at the first and second ends of the substrate are depressed such that the end surfaces of the partition walls are transformed into a depression having a deepest portion at the center axis of the passage, as taught in the instant specification at page 9, lines 26-37 and as shown in instant Figs. 2 and 5.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Ishihara et al., Ichikawa, Okajima et al., Nakatani et al. '930,

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Nakatani et al. '080, Itoh et al, Nakatani et al. '343, JP 2004-324575 and FR 2 841 151 references disclose similar substrates and methods for their manufacture.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Greene
Examiner
Art Unit 1724



jmg
July 6, 2005

DUANE SMITH
PRIMARY EXAMINER


7-7-05